

Amendments to the Claims

1. (Currently amended) Apparatus for removing materials from a gas stream, comprising:

- a) a reservoir for liquid,
- b) an inlet channel in fluid communication with the reservoir,

c) a perforated sheet located above the reservoir, wherein the perforated sheet defines an inlet area below the sheet and an outlet area located above the sheet, the outlet area and the inlet area of the perforated sheet being free of any barrier in contact with the sheet except at ends of the sheet, the perforated sheet being positioned such that substantially all fluid flowing from said inlet channel passes from the region below the sheet, through perforations in the sheet and into the outlet area, and

d) a liquid transfer channel, ~~the liquid transfer channel defining a fluid path between the reservoir and said outlet area,~~ the liquid transfer channel being located between an end of the perforated sheet and an exterior wall of the reservoir, the liquid transfer channel comprising a sole path for fluid flow between the reservoir and the outlet area except for fluid flow through the perforations, and wherein the perforated sheet is free of any barrier, in contact with the sheet, in the outlet area, to fluid flow into the liquid transfer channel,

wherein a pressure difference between the outlet area and the inlet channel comprises a sole means for moving liquid from the reservoir into the outlet area.

2. (Original) The apparatus of Claim 1, wherein the apparatus has no pump for conveying liquid.

3. (Original) The apparatus of Claim 1, further comprising a blower for conveying gas through the apparatus.

4. (Original) The apparatus of Claim 3, wherein the blower is configured to push gas into the inlet channel and into the reservoir.

5. (Original) The apparatus of Claim 3, wherein the blower is configured to pull gas out of the outlet area.

6. (Original) The apparatus of Claim 1, wherein the inlet channel includes an inlet ramp which constricts the inlet channel.

7. (Original) The apparatus of Claim 6, wherein the inlet ramp defines a point of maximum constriction, and wherein the perforated sheet extends to said point of maximum constriction.

8. (Original) The apparatus of Claim 1, further comprising a plurality of wave breaks located within the reservoir, and under the perforated sheet.

9. (Original) The apparatus of Claim 8, further comprising a plurality of wave breaks located above the perforated sheet.

10. (Original) The apparatus of Claim 1, further comprising a sludge

ramp located within the reservoir, the sludge ramp comprising means for directing sludge to a collection point.

11. (Original) The apparatus of Claim 1, further comprising an outlet opening, and a silencer baffle located below the outlet opening.

12. (Currently amended) Apparatus for removing materials from a gas stream, comprising:

a) a reservoir for liquid,

b) a perforated sheet located above the reservoir, the sheet defining an upper region above the sheet and a lower region below the sheet, the upper region and the lower region being substantially unobstructed by any barrier in contact with the sheet except at ends of the sheet,

c) a liquid transfer channel, *the liquid transfer channel defining a fluid path between the reservoir and an outlet area located above the perforated sheet/* the liquid transfer channel being located between an end of the perforated sheet and an exterior wall of the reservoir, the liquid transfer channel comprising a sole path for fluid flow between the reservoir and the upper region except for fluid flow through perforations in the sheet, and wherein the perforated sheet is free of any barrier, in contact with the sheet, in the upper region, to fluid flow into the liquid transfer channel, and

d) means for conveying a gas towards the reservoir and through the perforated sheet, wherein the conveying means comprises means for directing gas from the lower region, through the sheet, and into the upper region,

wherein a pressure difference between the upper and lower region comprises a sole means for moving liquid from the reservoir into a region above the perforated sheet.

13. (Currently amended) Apparatus for removing materials from a gas stream, comprising:

a) a housing defining an inlet channel and a reservoir, the inlet channel being in fluid communication with the reservoir,

b) a perforated sheet located above the reservoir, the sheet defining an upper region above the sheet and a lower region below the sheet, the upper region and the lower region being substantially unobstructed by any barrier in contact with the sheet except at ends of the sheet,

c) a liquid transfer channel ~~for providing a path for liquid between the reservoir and an area above the perforated sheet~~, the liquid transfer channel being located between an end of the perforated sheet and an exterior wall of the reservoir, the liquid transfer channel comprising a sole path for fluid flow between the reservoir and the upper region except for fluid flow through perforations in the sheet, and wherein the perforated sheet is free of any barrier, in contact with the sheet, in the upper region, to fluid flow into the liquid transfer channel,

d) a plurality of wave breaks positioned above and below the perforated sheet, and

e) a fan for moving gas from the inlet channel to the lower region, through the sheet, and into the upper region.

14. (Previously presented) The apparatus of Claim 13, wherein a pressure difference between the upper and lower regions comprises a sole means for moving liquid from the reservoir to the upper region.

15. (Original) The apparatus of Claim 14, further comprising a

sludge ramp located within the reservoir, the sludge ramp comprising means for directing sludge to a collection point.

16. (Original) The apparatus of Claim 14, further comprising an outlet opening, and a silencer baffle located below the outlet opening.

17. (Currently amended) A method of removing materials from a gas stream, comprising conveying a gas stream containing materials to be removed into a reservoir containing a liquid, the reservoir being located below a perforated sheet, the sheet defining an upper region above the sheet and a lower region below the sheet, the upper region and the lower region being substantially unobstructed by any barrier in contact with the sheet except at ends of the sheet, the reservoir being in fluid communication with the upper region through a liquid transfer channel that is narrower than the reservoir, the liquid transfer channel being located between an end of the perforated sheet and an exterior wall of the reservoir, the liquid transfer channel comprising a sole path for fluid flow between the reservoir and the upper region except for fluid flow through perforations in the sheet, and wherein the perforated sheet is free of any barrier, in contact with the sheet, in the upper region, to fluid flow into the liquid transfer channel, wherein the gas stream is conveyed, from the lower region, through the sheet, and into the upper region, at a rate such that a pressure drop induced by flow of gas through the perforated sheet is sufficient to cause liquid to rise from the reservoir and to cover the perforated sheet.

18. (Original) The method of Claim 17, wherein liquid is conveyed through the liquid transfer channel without assistance from a pump.

19. (Currently amended) A method of scrubbing a gas, comprising directing gas to be scrubbed through a perforated sheet located above a reservoir containing a liquid, the sheet defining an upper region above the sheet and a lower region below the sheet, the upper region and the lower region being substantially unobstructed by any barrier in contact with the sheet except at ends of the sheet, wherein the reservoir is in fluid communication with the upper region through a liquid transfer channel, the liquid transfer channel being located between an end of the perforated sheet and an exterior wall of the reservoir, the liquid transfer channel comprising a sole path for fluid flow between the reservoir and the upper region except for fluid flow through perforations in the sheet, and wherein the perforated sheet is free of any barrier, in contact with the sheet, in the upper region, to fluid flow into the liquid transfer channel, wherein the gas is directed, from the lower region, through the sheet, and into the upper region, at a rate sufficient to induce a pressure drop across the sheet sufficient to cause liquid from the reservoir to flow through the liquid transfer channel and to flood the sheet.

20. (Original) The method of Claim 19, wherein liquid flows through the liquid transfer channel without assistance from a pump.